Forensic Scientist 3 - DNA Consultant (FRS-LA)

Forensic Dover, Delaware

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Description

SNA International is seeking a Forensic Scientist 3 – DNA Consultant (FRS\_LA). The Family Reference Sample – Laboratory Automation (FRS-LA) Section Forensic Consultant has a primary mission to support the Defense POW-MIA Accounting Agency (DPAA) in the processing of all family reference samples received for missing service members by helping to develop and maintain the family member database.

A FRS-LA Forensic DNA Consultant assists in technical casework at the direction of their designated supervisor. In this they perform set management, data analysis, report generation, and technical review of reference samples and reports generated in Mitochondrial and/or nuclear PCR – based DNA typing and Mitochondrial next generation sequencing methods in support of past accounting and current day operations identifications.

**Minimum Requirements:**

* Appropriate knowledge and skills for this position including and in accordance with applicable standards for Education/Work Experience Requirements.
	+ Possess a bachelor’s degree (or its equivalent) with two years of work experience, or an advanced degree in a biology-, chemistry-, or forensic science- related area.
	+ Must have successfully completed a minimum of 9 cumulative semester hours or equivalent (graduate or undergraduate level) covering the following subject areas: biochemistry, genetics, molecular biology; and course work and/or training in statistics and/or population genetics as it applies to forensic DNA analysis. \*\*\*NOTE: Statistics course is required after July 1, 2020, per SOP.
	+ Must have six months of forensic human DNA laboratory experience. If prior forensic human DNA laboratory experience is accepted by the laboratory (AFDIL), the prior experience shall be documented and augmented by additional training, as needed, in the analytical methodologies, platforms and interpretations of human DNA results used by the laboratory (AFDIL).
	+ Must meet the FBI Quality Assurance Standards for a DNA Analyst regarding successful completion of college level courses (undergraduate or graduate level) in biochemistry, genetics, molecular biology, and population genetics and/or statistics.
	+ Must be a current or previously qualified Analyst in one or more forensic DNA technologies (STR, YSTR, mtDNA).
	+ Possess knowledge of the programs of the DoD DNA Registry and the military services as they relate to the clerical and administrative functions of the organization.
	+ Possess general knowledge of forensic casework typing methods, especiallynucDNA and mtDNA profiling.
	Maintain a professional knowledge and understanding of relevant current issues in the scientific and forensic community.
	+ Professional knowledge and understanding of the principles and theories of molecular biology.
	Ability to apply practical and theoretical knowledge to independently alter or modify established analytical procedures using scientifically acceptable approaches to resolve unforeseen difficulties arising from analyses of DNA derived from casework samples.
	+ Knowledge of safety procedures, guidelines, and regulations.
	+ Sufficient level of competence in order to argue, reason, and draw inferences and conclusions from technical information, experimental data and scientific theories, and to prepare effective oral and written presentations.
	Personality traits necessary to maintain good team cohesion and to set a good working example.
	+ Knowledge of various requirements necessary for achieving accreditation by outside inspection agencies to include the ANSI National Accreditation Board (ANAB), the FBI QAS, the DoD Mitochondrial DNA Quality Assurance Oversight Committee, and the International Standards Organization (ISO 17025 criteria).
	+ Must be able to successfully complete a National Agency Check with Inquiries (NAC-I)
* Individual must be able to understand the capabilities, limitations, and interpretive results from the following complex technical procedures:
	+ Processing and preparation of various casework sample types for extraction and purification of DNA.
	+ Quantitative & qualitative analysis of DNA by various methods.
	+ Application of PCR procedures to amplify target template DNA for subsequent analysis.
	+ Separation of DNA fragments, including nuclear and mtDNA amplification and sequencing products, using capillary electrophoresis systems, and various stationary matrixes such as agarose and polyacrylamide gels.
	+ Dye termination sequence analysis of target areas of the mtDNA genome.
	+ Analysis of PCR amplified DNA using fluorescent STR technologies.
	+ Operation of automated/robotic instrumentation associated with reference sample processing.
	+ Use of automated computer management systems to manipulate and analyze data in preparation of interim and final reports on casework and developmental studies.
	+ Training in statistics and or population genetics for computation of population frequency statistics as it applies to forensic DNA analysis.
	+ Analysis and interpretation of Mitochondrial DNA (mtDNA) sequence data, Autosomal STR (auSTR) profiles, or Y Chromosomal STR (Y-STR) profiles as applied to determining the statistical relevancy of DNA profile matches between questioned and reference samples when both are derived from the same individual, or, in the more complex situation, when the reference samples are derived from blood relatives.

**Critical Work Responsibilities:**

* Assist in the expansion of the AFDIL technical program to accelerate service work capabilities which may include the following: Act as a managing/lead analyst for reference casework performed by DNA technicians.
	+ Perform data analysis of mtDNA, auSTR and/or Y-STR data.
	+ Generate FRS reports.
	+ Perform technical and administrative review of casework folders, laboratory analyses and technical reports.
	+ Assist in quality assurance activities as needed.
* Assist in educational and training activities including training/mentoring of other assigned AFDIL personnel.
* Support validation projects focusing on systems with increased sensitivity and discrimination power and advanced development of automated systems.
* Support research projects focusing on various projects to include population databasing, and working to increase sensitivity, discrimination power, and automatedcsystems for casework applications.

**Work Environment:**

* This is a hybrid position; minimum one day per week on-site at the AFMES facility, as well as off-site using a government-issued laptop.
* This position does not involve maintaining proficiency in laboratory processing.
* Understands the possibility exists of exposure to noxious odors, hazardous chemicals, poisons, corrosive reagents, infectious tissues, and x-ray, laser, and ultraviolet types of electromagnetic radiation.

**Physical Demands:**

* Forensic Consultant should be able to: Sit or stand at automated computer management systems/ computers for extended periods of time.

**To Apply:**
**Please submit your resume and a cover letter that outlines why you should be considered for this position and position level. Applications without a cover letter will not be considered.

No phone calls.**